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Correspondence from particular farmers, giving the results of their experience, is solicited. Letters should be signed with the writer's real name, in full, which will be printed or not, at the writer's option.

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AGRICULTURAL.

An average cow requires about three per cent. of her weight in hay each day.

STUMPS should never be set on fire until they are thoroughly seasoned to be sure of thorough work. A partially burned, charred stump is very slow to decay.

FEDERS who have a lot of coarse and bad flavored hay should mix it with that of better quality, using one-third of the poorer hay with two-thirds of timothy and clover.

PUMPKINS fed in moderate quantities will increase the flow of milk. Any kind of juicy food must not be given to excess, or the milk yield will decrease instead of gain.

THE only way to permanently improve light soil is to get it full of vegetable matter, which may be done either by turning under green crops, or carting on muck or meadow mud.

SOME varieties of apples not quite hardy in the wood seem to be hardy in the fruit buds. Such trees, even when considerably injured by winter killing, may bear a good crop of fruit, but a tree injured in this way should not be allowed to mature a large crop. It will be likely to die the following year.

BIRDS around the homestead are good company. A box bird-house will encourage a family of martens or other feathered visitors to set up housekeeping. A common box will answer; one fifteen inches square can be provided for two bird families. It may be placed upon a pole ten or fifteen feet high, or upon a tree. If it is placed on a pole, a vine trained upon the pole would be an improvement. The bird house should be made in winter before the birds are ready to use it.

Our illustration represents this week the bull, Spinoza Pogis, 41,783, A. J. C. C., which heads the herd of C. O. Tucker, Newton, Mass. He was dropped April 15, 1894, is gray on the back, shading darker on the sides, head and neck, with black tongue and switch. This bull was sired by Spinoza, 50,741, son of Jessie of Locust Farm, 2d, the latter having a record of over forty pounds of milk a day, being the best cow in a large herd of good ones. Her milk tested over nine per cent. butter fat by Babcock test, the highest record in Massachusetts. His dam was Real Queen Pogis, 88,465, descended from stock with large milk records.

Smoke Houses.

The best smoke houses are made of brick with a cement or brick floor. A house six by seven feet is large enough for most farmers. Seven feet is about the right height. If the door is made of wood it should be lined with metal. The inside should be provided with hooks on which to hang the hams or other meat. For providing the smoke, corn cobs make a good fuel.

December on the Farm.

The prudent and thrifty farmer will now have everything snug and ready for winter.

The comparative leisure of this season gives a good opportunity to close up the accounts of the year and lay plans for the next season's operations; every farmer ought to be able to tell the cost of each article he has to sell, and thus be able to judge whether it is worth while to increase or diminish the production. A little time devoted to posting up the expenses and receipts due to each article will be time well spent, and the results should be useful, if the books have been carefully kept.

The care of the stock and the hauling of firewood and lumber from the woods, are the principal jobs at this season of the year; before the snow falls is the best time for cutting the wood and piling it.

Strawberry and spinach beds should now have a light covering of salt hay, or sedge or evergreen boughs, just enough to protect them from sun and wind; too much covering is bad, causing plants to rot.

Pruning of grape vines and currant and gooseberry bushes may be done on pleasant days this month, and will save time in spring when time is more valuable, moreover grape vines will not bleed if cut now as they will in spring.

The intelligent and progressive farmer will make it a point to attend the meetings of the Board of Agriculture and of his local society and grange, for at these meetings one is sure to meet the most enterprising and observing of farmers, and interchange of experience is often very useful. And by no means forget to take the ladies of the family with you, that they may add the charm of their presence and often their kindly advice.

The poultryman who was shrewd enough to raise some early chickens last May and take proper care of them should now be gathering a good yield of eggs and selling them at good prices. The market gardener will now be selling his celery, spinach and other fall crops, and lettuce, radishes, mint, etc., from his glass structures. Some of our market gardeners have of late years devoted part of their attention to growing flowers in winter, chrysanthemums, pinks and violets being the favorite flowers with them, these being more easily grown than roses. The demand for flowers is constantly increasing, and is likely to increase with prosperous times.

The long evenings of winter give a fine opportunity for reading, and most of our New England farms are within easy reach of good libraries where the best productions of standard literature are free to all who wish to use them. Those who like the company and conversation of the wisest and best of men who have ever lived, can thus enjoy them and reap far more benefit than from the idle gossip of the village store or bar-room. It is an old and true saying that "a man is known by the company he keeps;" let us then keep company in our reading only with the wise and the good, avoiding the exciting and often vicious literature to be found too often in our libraries. Such authors as Whittier, Lowell, Longfellow, Holmes, Emerson, Dickens and Thackeray will not lead us astray.

Clearing up Waste Places.

We have no way of estimating with any degree of accuracy the amount of loss sustained from year to year upon the farms of this country because we cannot till all our land. On almost every farm there are many waste places. Some of these are grown up to brush, some are in swamps and bogs, some lie along old rail fences, some are shaded by trees along their borders.

Upon all this land we from generation to generation pay taxes. The assessor takes no note of its lack of productiveness, and we owners have become insensible to the loss going on year after year. I am now living upon a farm on which, from time immemorial prior to my coming into possession of it, the

custom had been to draw all the stone from the meadow and plow land, when any was drawn anywhere, and throw them into the corners of the fences, there to lie and cover up valuable ground and invite briars and foul weeds of every description.

Such a row of stones lay right along the side of the road of my farm. Up through the stones raspberry bushes and elders had grown until the place was a terrible eyecore to every neat farmer. Just as soon as I possibly could I turned my attention to this nuisance. Some of the old farmers told me to cut the brush, "in the old of the moon in August" and I would have no further trouble. But the root of the matter lay back of the brush, and with a good strong team and plow and stoneboat I set out one day for the offensive row. But my work was not done in one day nor two. The stones I drew away to fill an approach to a barn. Then I set the plow to work. It was a job well calculated to give one the backache, for elder roots are not easily conquered. I made thorough work of it, however, and what a relief it was to me!

On the opposite side of the same field a lot of small trees grew up, sapping the goodness from the soil and shading the land so that no crop would yield good results within fifteen or twenty feet of the saplings. These I have cut. A field grown up to brush, so that it yielded no pasture to speak of, I have been clearing up by degrees, and now considerable grass grows there. These things take time. Yes; but think of the valuable returns. And the time has come when we must look closely after these waste places. The margin between success and failure may lie right along in that direction.—E. L. Vincent, Broome County, N. Y., in Ohio Farmer.

Cutting Off Large Branches.

Horticultural teachers are frequently discouraged by what seems to be the slow process of the adoption of horticultural practices. Over, and over, and over again, the same lessons have been repeated, and over and over again have the lessons been lost. Sometimes, however, progress seems slower than it really is; and this is especially true in relation to the pruning of trees, where large branches are concerned. It ought to be in evidence to the commonest observer that, when a stump is left some inches, and even feet, from the main trunk, the stump subsequently rots, and the rot is communicated to the heart of the tree. One would think, from these experiences, that not a stump would be left in this condition; but that the branch would be cut close to the trunk, and then the wound painted, to keep the surface from rotting until new bark had time to grow over and completely cover the wound. During the past year or so there has seemed evidence that this fact has penetrated the public brain. There has been more testimony this year, that the point is understood, then we have ever noted before. It is a comfort to feel that, for once, efforts are producing some good results.—Meehan's Monthly.

SPINOZA POGIS, A. J. C. C. 41,783.

Head of the Herd Owned by C. O. Tucker, Newton, Mass.

N. E. BOARD OF AGRICULTURE

Annual Winter Meeting at Rochester, Nov. 29--Dec. 1st.

EXCELLENT PROGRAM—ENTHUSIASTIC MEETING.

The opening session at "Grange Hall" was indeed very encouraging to the managers; for although it was a typical November day, ending in a snow storm—yet the commodious hall was well filled. At 8 o'clock P. M. Hon. J. H. Walker of Concord, the new President of the Board, rapped to order the meeting. The audience were treated to a fine selection from the "Rochester Male Quartet." F. P. Wentworth, Master of Rochester Grange, gave the address of welcome in behalf of the grange; it was well received. He believed that the four organizations composing this session, viz: State Board, Dairymen Association, Agricultural College and Grange were laborers together for the advancement of agriculture.

Pres. Walker made a most gracious response, reviewing the history of Rochester as a town and as a city.

The welcome for the city was made by his Honor the Mayor—and responded to by J. M. Connor of Hopkinton. A pleasing selection was rendered by the quartet.

Pres. Connor of the Dairymen's Association then gave his annual address and said in part, that there are many different classes in the agricultural world, but in the last twenty years great improvement has been made in the dairy business and still greater ones must be made, owing to the close competition along all the lines in this important calling. He believed that private dairymen must be encouraged if the farmers are to be more prosperous in the future. Many years of practical experience in dairymaking has proved to his entire satisfaction that this system returns far better dividends than the creamery system. That the lack of practical teachings of the average Dairy schools and Agricultural Colleges has not yet reached the pivotal points in dairymaking.

The making of "Gilt Edged" butter is the highest art in agriculture. In the very practical address he made many pungent points that were well received by the intelligent audience.

"HOME GROWN FEEDS FOR DAIRY COWS." Secretary McKee of Maine Board of Agriculture said in part—That this is one of the most important subjects in American dairymaking. A fixed rule of feeds, balanced rations—are now used by nearly all practical feeders. The cost of feeds is the first question confronting the dairyman. He believed in a utility ration as well as a balanced ration. The best varieties of grasses should be the mainstay in the fodder question, and the most nutritious feed is found to be in the new seeded grasses. All coarse fodders must be supplemented by grains—to form a perfect balanced ration for dairy cows. A good quality of early cut hay is the best crop, and next to that that of the corn crop, and a larger amount of food can be taken off of the

same acre. The value of this crop is about equal in the grain as in the foliage and stalk combined, if the latter is well cured and finely shredded at time of feeding to get the best results in feeding this very important crop. The "silo system" is the best method of storing it, and if the grain is allowed to ripen and the whole fodder is stocked in a proper manner and all cut and finely shredded it will be found to be a most economical feed for dairy stock.

All the clovers combined with alfalfa are of the greatest value and are of special value for summer feeding and takes the place to a large extent of summer grains in addition to forage ration, which is a great saving in the food bills.

The root crops is another valuable food for milk and butter. Potatoes stand first in food value and next mangels—in fact, all the roots are of great benefit in feeding from a health point. All the foliage crop should be cut just at the right stage of growth for best results. In the near future home grown grain crops will be increased largely by practical dairymen.

The leguminous crops and vetches should be grown more. Sun-flowers cut and ensilaged with corn and fed judiciously is an excellent food.

This very practical and excellent address of the genial Secretary of the Maine Board was listened to with the greatest interest by all.

DAIRY POINTS

Picked from the aftermath of the address. The farm should be capable of raising nearly all of its food for the dairy.

Gluten meal is the best and cheapest feed to buy at the present for dairy cows.

Best silo corn is found to be the largest growing kinds of the "Flint" varieties.

Vetches grown with oats are better than peas.

Chicago gluten meal nearly as rich in protein as commercial cotton seed meal.

Handling and Marketing Milk.

[Address of John B. Bowker, Worcester, Mass. at the annual meeting of the N. H. State Board of Agriculture at Rochester.]

The more skillful we become in the methods of producing milk, the more skill is required in the successful care of and marketing of the milk. To make the cow give a paying quantity of milk requires a skillful man. The proper handling of the milk requires a cleanly man. To sell that milk profitably requires an intelligent man.

Every New England farmer is born heir to the usual amount of native Yankee wit and wisdom, and if these traits are properly trained from youth up, we have the successful and money making farmer. The saying that "Cleanliness is next to Godliness" should be posted in every conspicuous place on the dairy farm.

Cleanliness is the most important factor in the milk business. The man should be clean, the barn clean, the

cow clean, and the milk utensils clean. For years we have been told that milk takes disagreeable odors and retains them more readily than most anything else that could be named. And we have been truthfully told that promptness in removing the milk from the cow stable to the milk house or cooler is of the utmost importance. Every receptacle in which milk is put should be thoroughly clean, and sweet, and cold, and so far as possible should be placed where no odors can even reach the receptacle in which the milk is placed.

THE SMALL FARMER.

My sympathy is with the small farmer who has from four to six cows. He is nearly always overlooked when matters of this kind are considered, and when improvements which are expensive and can be afforded by only the large dairies of thirty or forty cows are suggested, we are told by speaker after speaker that these improvements should be required of all. This is wrong, very wrong. The two or four or six cow dairy man has an undeniable right to sell his product in competition with all others and on an equal footing so long as he produces a product of equal quality. He has the right to refuse to carry out any suggestion or demand which would require the outlay of any amount of money upon which he would not receive a proper return for the outlay required. And anyone who is the true friend of the farmer will study out and devise only the most economical plan possible which will accomplish the desired result.

A milk house apart from the barn or house of course is a desirable thing, but all cannot afford it. That the milk should not be turned from the pail to the can in the cow stable or the living rooms of the house should be apparent to all. Neither should the cans or milk cooler be left in those places during milking time or at any other time. Many of the small farmers have ice houses attached either to the barn or the house in a convenient location. A few boards and nails and a small outlay of labor would partition off a portion of the ice house and the cans, cooler, mixer, etc. could be kept there, and the surrounding ice pack would be a draw-back by any means. The thickness of the walls in winter, and the storing of the ice in summer tends to keep an even temperature throughout the year. If no ice house, then partition off a small portion of the woodshed sufficient for the dairy utensils and the milk to be cared for, and when you have the place fixed, wherever located, do not make it the general repository for everything else which seems to be out of place upon the farm. There will be a mighty temptation to do it, but resist, even if it be necessary to put a placard over the door "For Milk Only."

Every farmer knows what is right, and every farmer knowing his location and its possibilities better than anyone else, and knowing what is necessary can be relied upon to adopt that which is best, considering his surroundings and circumstances.

Milk should be thoroughly cooled as quickly as possible after being drawn from the cow and kept at a low temperature. I believe that the most healthy and best selling milk in the future will be that which has been promptly cooled and kept at a low temperature.

SCIENCE AND THE MILK QUESTION.

A great stir has of late been made by some of our scientific friends who have become exceedingly alarmed at the dangers which may be contained in the milk supply. They have issued warnings and started scares on about every commodity of food until they are worn out, and now in order to support their scientific investigations go back to the product of the meek and gentle cow and the honest hard-working farmer. A huge cry has lately been raised in Boston, and I believe if the truth of the matter could be ascertained, that our scientific friends would find more death dealing germs in the back-yards and in the water which is drunk every day than in any milk which has ever been sent into the city of Boston. The milk which has been drawn from the cow upon the farm and fed to the farmers'

children, and which has built up the happy, red-cheeked, light-hearted robust and lusty young man and woman, cannot under any common-sense rule have any other than the same, or at least a good effect, upon the health and growth of man in our large cities, provided that this milk can be fed to the city children in the same condition as it is fed to the boys and girls upon the farm. That being the case, does it not behoove our scientific friends to cease branding the farmer as a criminal, and his cow as the originator of disease, and try some practical remedy which will insure quick shipment and prompt delivery so that the least possible time shall elapse between the milking of the cow and its consumption by the people of our large cities?

Dr. Alexander Bernstein of Berlin, Germany, at the meeting of the Boston Homoeopathic Medical Society in Boston, read a paper a short time ago on milk from the sanitary point of view, and after a careful and exhaustive treatise upon the subject, considering the milk in all its many conditions and forms summed up as follows: 1st, The milk should in appearance and taste resemble newly drawn milk as much as possible. 2nd, The value of the milk as food should not be impaired nor should any objectionable substance be added to it. 3rd, No germ of dangerous character, such as might produce infectious disease, should be contained in the milk. 4th, The treatment of milk must not materially increase its price.

At this lecture, Dr. Bernstein also exhibited five flasks of milk subjected to different temperatures, the flasks having been thoroughly sterilized and rendered absolutely clean before the milk was placed in them. Flask 1 had been on ice during three days. Flask 2 had been kept in a room of average temperature of 17 degrees centigrade during the same time. Flask 3 contained milk which had been heated to 70 degrees centigrade for one half hour, and then kept five days at room temperature. Flask 4 contained boiled milk, which after boiling had been kept in a room for seven days. Flask 5 contained milk which had been in a steam chamber for five consecutive hours. A careful examination revealed the fact that, as an article of food, the best, from both the standpoint of health and desirability on account of its pleasant taste, was that milk which was in flask 1, and in which no alteration had taken place. All the others showed more or less alteration in the form of the milk, and some had an exceedingly obnoxious odor or taste, so much so in some cases that they could not be sold to any person unless they were in a state of starvation. It was also proved that there was the least danger to the human race in milk cared for after the manner of that in Flask 1.

STERILIZED MILK.

We have heard a great deal about sterilized milk, and some of our scientists have favored its compulsory introduction. Such milk must necessarily be sold in bottles which are hermetically sealed in order to prevent re-infection from outside germs, and this entails considerable increase in the price of milk. If dangerous germs should come in sterilized milk they find an unoccupied field, and their multiplication is by far more rapid than in ordinary milk. For example: Cholera germs entering into ordinary milk will soon lose their vitality as they cannot stand the competition of the lactic acid bacteria, but cholera germs put into sterilized milk multiply very rapidly, therefore, in both the light of common sense and in the light of true science the milk which, when drawn from the cow, is promptly cooled and put into clean cold receptacles and kept so until delivered is the most economical and most healthful which can be devised.

THE MILK CAN QUESTION.

It is a mistake to close up tight any receptacle in which milk has been. Take a new can, fill it with milk and keep it for thirty-four hours, then empty the milk, wash your can thoroughly and scald it, put in the stopper tight and let it stand for several hours, then remove the stopper and the smell from the can

[CONTINUED ON FIFTH PAGE.]

MASSACHUSETTS PLOUGHMAN

BOSTON, DECEMBER 4, 1897.

Persons desiring a change in the address of their paper must state where the paper has been sent as well as the new direction.

A FIRST-RATE farmer will do well on any farm.

PERSISTENT endeavor deserves success and generally gets it.

There is a disgraceful trio for any farm; poor work, waste and debt.

The farmer who is driven by his work is likely soon to be driven to death.

The man who builds a good barn will be the sooner able to build a good house.

Do not wait for the rising of the sun of prosperity, but get up early and strike a light.

To aim at perfection in farm work, is good for the farm; it is even better for the farmer.

Work and prosperity are a pair of steeds. They cannot well be driven except as a span.

As a lawyer works for his client, or a faithful minister for his charge, so should a farmer work for his farm.

A FARMER is not so likely to waste money as to waste time and material, and yet these have a cash value.

WATCH the manure pile. On some farms, rain carries off more richness than is ever brought back in fertilizer bags.

The power to think closely and act promptly, is a prime qualification for a business man, and is yet as useful for the farmer.

A USEFUL task for a winter day is to put an edge on the farm tools and to make them ready for coming use. See that the spades, scythes, hoes, chisels and saws are ready for use, using the grindstone and files freely.

The wise young farmer picks out a wife who likes farming and is fond of country life. His comfort, if not his success, depends largely upon the attitude, helpful or otherwise, which his helpmate assumes toward his occupation.

GREAT BRITAIN seems to be gradually growing out of wheat farming; devoting fewer acres year by year to that industry. All the farming land in the island, under a reasonable crop rotation would not grow wheat enough for the home demand.

INVESTIGATIONS of the State Board of Health into the food supplies of Massachusetts show rather a long list of adulterations; affecting olive oil, lard, honey, molasses, maple syrup and sugar, spices, vinegar, coffee, cocoa, cream of tartar. It's a wise man who knows what he eats.

THE best investment for surplus earnings is upon the farm itself. Outlays upon the following lines are likely to return a good per cent. Draining wet land, the purchase of better live stock, improvement of the fencing, good fruit trees, wise purchase of machinery, the repair of farm buildings.

It seems that only two of the Massachusetts cities have a milk supply which upon investigation proved up to the legal standard in every sample. These lucky communities are in the western part of the state. Of the tests made in Boston 34.1 per cent. were below standard, while in Malden the per cent. testing below was 56.6.

WESTERN farmers have been paying off their mortgages so fast lately that eastern lenders have a surplus of money on hand, and are looking about for a place to plant it safely. That is one reason why good investment stocks have advanced somewhat during the past few months. After all, the best farmers' investment is in farm improvements.

SPECIALTY farming has certain advantages. It concentrates the powers, and stimulates thought. One who works along one line is sure to obtain unusual skill. The specialist who holds to his pet crop through thick and thin, is likely to average better profit than the one who jumps from one thing to another according to the fluctuations of the market.

AGRICULTURE needs more men of genius. Ability there is in plenty, but men are needed who can strike out successfully on entirely new lines. Like Bakewell, the stock breeder, for instance, who discovered a way to improve the breed so that in fifty years the weight of fat oxen changed from 400 to 1200 pounds and the fleece of sheep increased fourfold. No doubt there is still plenty of equally important agricultural achievement awaiting the right man.

How's This!

We offer One Hundred Dollars reward for any case of catarrh that cannot be cured by Hall's Catarrh Cure.

P. J. CHENEY & CO., Toledo, O. We, the undersigned, have known F. J. Cheney for the last 15 years, and believe him perfectly honorable in all business transactions and financially able to carry out any obligations made by him.

WEST & TRUAX, Wholesale Druggists, Toledo, O. WALKER, KINSEY & MARVIN, Wholesale Druggists, Toledo, O. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Testimonials sent free. Price 75c. per bottle. Sold by all Druggists.

CURRENT TOPICS.

Autonomy for Cuba has been proclaimed by the Spanish government; and as outlined, it is very liberal, conferring upon Cuba the full control of legislation for the island, making the Captain General responsible to the island legislature and allowing the Cuban government the power of fixing all duties, Spain, however, to have the preference in trade relations. Our government will probably take no further action in the settlement of the trouble between Spain and Cuba until this new plan is given a fair trial, certainly not until Congress gets well under way.

The Merchants' Week which closed with the date of this issue, has been so successful that it is likely to become a permanent institution. The Boston merchants have worked in perfect harmony and entered into the arrangements with enthusiasm and liberality, and the returns, without doubt, will fully justify the outlay. Excursion trains have brought hosts of people into the city to take advantage of the liberal offers and mark down in the various stores. With a more general knowledge of this opportunity and a wider advertising, many more people will, another year, take advantage of this opportunity and do their shopping in Boston instead of the outlying towns, both to their own advantage and to the Boston merchants.

It is quite generally reported that King Humbert of Italy has resolved to abdicate in favor of his son. Both Austria and Germany are interested to prevent him from taking this step, as the alliance which now exists between those countries and Italy would be seriously endangered by the change. The prince of Naples is far more favorably inclined towards Russia than toward either Austria or Germany. So long as King Humbert is on the throne, Italy cannot withdraw from the triple alliance and is bound to maintain naval and military equipments which are beyond the capacities of her resources to sustain, and also to pursue a policy towards France which is detrimental to her commercial interests. Victor Emmanuel the Prince of Naples, is one of the most energetic, active and clever princes in Europe. He is said to possess far more decision of character than his father, and under him as king, the country would undoubtedly prosper.

Strange stories come from across the water of scenes of riot and great disorder in the Austrian parliament. It is said that the ferocity of the fight is unprecedented in parliamentary history. The conflict is utterly beyond the conception of those who have not seen it. For eight consecutive hours the mob held control. Men were thrown to the floor and crawled up from between desks and chairs with torn hair and rent clothes. The president stood helpless at his desk with splintered gavel, his face ashen white and his cheeks streaming with tears of anger, shame and excitement. And these scenes have been of almost daily occurrence. The cause of it all is the jealousy existing between the different races included in the Austrian empire, the Germans and Czechs fighting bitterly for the political control of the government. The discordant elements have, in the past, been held together by the popularity of the Austrian emperor, but those in the line of succession are unpopular, and in the event of his death, the future of the Austrian government would be problematical.

As a result of the strike among workmen in the large glass manufacturing concerns of the country, the supply of glass is greatly curtailed, and it is stated that, unless the strike terminates soon, there will be no commercial glass at any large supply point within thirty days. It is said that unless glass is imported from abroad it will soon be utterly impossible for dealers to supply the trade in this country, which has recently been decidedly active as a result of the increased amount of building in all parts of the country, and because of the general improvement in business everywhere. Orders from wholesale dealers for large quantities are being held back, or only a half or third of the quantity ordered is being shipped from the factories, while in some instances orders are being refused entirely. The strike of glass workers, which is directly responsible for this present glass famine, is interesting in its uniqueness. It means that one body of union workmen is busy trying to prevent another body of union workmen from receiving an advance in wages, which the first thinks is excessive, although the increase does not come out of its pocket by any means. Whenever a settlement is reached it will be at least six weeks before the mills can turn out any work, as it will take that length of time to start up the plants. In the meantime all of the jobbers are running out of stock and are daily refusing many orders.

It is now proposed, with a novel style of commercial campaign, to see whether a heavy increase cannot be made in our trade with the Chinese empire, says *Hurper's Weekly*. The latest American method of a permanent exhibition is to be applied at the great city of Shanghai. Our celestial cousins are so steeped in the superstition of centuries that they will not believe the marvels of modern machinery unless they see them. Hence they cannot be induced to buy from circulars or pictures. In order to meet and

overcome this prejudice, American merchants of New York, Chicago, Philadelphia, and San Francisco have united in the establishment of an American-Chinese chamber of commerce at Shanghai. Plans have been completed by George S. Bowen, well known for his connection with the exposition at Chicago; ground has been secured at a convenient point in the American reservation of Shanghai; building designs of a Chicago architect have been adopted, and enough subscriptions to the enterprise have been secured to insure interest payments on the required sum. Manufacturers' associations of four cities have heartily endorsed the plan.

The proposed structure is to be 400 feet long, 200 wide, and will cost about \$200,000. It will be divided into sections similar to the World's Fair buildings. In it are to be permanently displayed, for the inspection of unbelieving Orientals, a wide assortment of the latest American machinery, electrical apparatus, and exclusively American manufactured products and material. Chalmers will have the chance they demand of seeing all this vaunted machinery in operation. It is confidently assumed that this eye-opening process will loosen their purse-strings, and divert a large part, if not the lion's share, of China's trade to the United States when the new development gets fairly underway.

One feature in this enterprise will commend itself to all interested parties. It is to be thoroughly American in management and methods. Those of our merchants who have connections in China are represented almost exclusively by foreign agents there, and the results have not been satisfactory. These men are tainted by their own national prejudice and methods. They lack that patriotic devotion to American interests which native Americans would show. Not only are the officers of the new Shanghai chamber to be Americans throughout, but all exhibitors are urged to send their own trusted representatives to control their interests in China.

The annual meeting of the Milk Producers' Union in Boston in January is likely to be a lively occasion. There is a faction anxious to make an open fight against the contractors, and opposed to the peaceful policy of the present management. But the majority of the Union is rather lukewarm, as shown by the fact that the treasury has been allowed to become nearly empty. In case of open hostility it is difficult to see where the slivers of war are coming from by the present plan of raising money. Those who prefer a more aggressive policy, however, are liable to make themselves quite prominent at the meeting, and important changes of policy may be brought about. At any rate it is to be hoped that some way will be devised to raise more money, either Mr. Bowker's one mill per can scheme or some other equally promising method.

Literary Notes.

Like all of Miss Murrell's books, the scene of *THE JUGGLER*, by Charles Egbert Cradock is laid in the mountain regions of Tennessee. The character around which centres the principal interest is a gay young man from a Southern city who has been reported as killed in a river boat explosion and who, if he makes his self known, will be placed in such an equivocal position, that he accepts the fate thrust upon him and buries himself in the mountain wilderness. Out from all that has made life a pleasure to him in the past, and his only companions the ignorant and superstitious mountain people, he finds life hardly worth the living, even though a pretty little love episode brightens the deadly dullness of such an existence. His tricks of legerdemain by which he seeks to gain a little money arouse the superstition of the mountain folk, and his evident desire for concealment leads to efforts to bring him to justice, which precipitates a tragic ending, that is in painful contrast to the natural light heartedness and buoyancy of the young man. The story is hardly a cheerful one, being too deeply tragic, but is well and strongly written, full of sharp contrasts and gives a clear picture of the mountain life. Price \$1.25. Houghton, Mifflin & Co., Publishers.

The leading features of the Christmas HARPER'S are "The Woe of Malkinton," a narrative poem by General Lew Wallace, illustrated by G. V. Dumont; "The Queen's Jubilee," by Richard Harding Davis, illustrated by R. C. Woodville; "Destiny at Dryden," a story by Owen Wister, illustrated by Frederic Remington; "An Act of Charity," by Charles Dudley Warner; "George William Curtis at Concord," by George Willis Cooke, illustrated; "A Bird's Egg," by Ernest Ingersoll, illustrated by fac-similes in color of the eggs of the most familiar American birds; and "Puppets, Ancient and Modern," by F. J. Ziegler, illustrated.

The Christmas number of the *CENTURY* reflects much of the holiday spirit. The opening article is "Merry Christmas in the Tenebres," by Jacob A. Riis, author of "How the Other Half Lives," and other studies of life in the tenement districts of New York. Mr. Riis shows that even in the most poverty-stricken parts of the city gay and good-fellowing are to be found at the Christmas season. Clarence Cook contributes a sketch of the author of the familiar poem of childhood, "Twas the Night before Christmas," and a portrait is given of the author, Dr. Clement C. Moore. The late General Francis A. Walker is represented by a paper on "The Causes of Poverty." A richly illustrated paper "Tennyson and His Friends at Freshwater" is written by V. C. Scott-O'Connor, and contains many new portraits of the Tennyson family published with the consent of the present Lord Tennyson. Miss Eliza Ruhamah Selmdore tells of "The Wonderful Morning-Glories of Japan," which are taking the place of the chrysanthemum in the affections of the Japanese people. Accompanying the articles are illustrations of many striking varieties of the flower. There are six short stories in the number, two stories about horses by David Gray in the collection of "Gallopers," a story of life among the Canadian guides, "Pat Mullarkey's Reformation," by Rev. Dr. Henry van Dyke, a character sketch by Marion Manville Pope, "Hezbollah's Mothering," a western tale, "The Picture of Agnes," by Hayden Carruth, and a social study, "A Little Episode of Youth," by Lillie Hamilton French. James Whitcomb Riley's serial poem, "The Rubaiyat of Doc Sifers," is concluded.

THE STORY OF AN UNTOLD LOVE, by P. L. Ford, is a love story wholly different from the conventional love tale one so frequently meets with. Written in the form of a diary in which the principal character expresses his love for the heroine, his love through unfortunate circumstances, he believes must ever remain untold, the interest and sympathy is held unflinching to the end. The two principal characters grew up together as children, spending the earliest years of their lives in a happy care-free companionship, wandering through Europe with the young man's father as their delightful teacher and guide. Later they were ruthlessly separated and not until long afterward did the youth learn it was because his beloved father had been unfaithful to his trust and had appropriated a large portion of the property of his little ward. As soon as this came to his knowledge, which was after the death of his father, the son set himself to the task of making full restitution, doing so under an assumed name. To accomplish this purpose, he sacrifices every ambition, allows himself only the merest necessities, and accepts every opportunity whereby he may obtain the money to cancel the debt and clear his father's name from the stain upon it. He is constantly thrown into the society of the woman he loves, who, he believes, still only thinks of his father and himself as betrayers of her trust and confidence, and he is obliged to stand quietly by and see her on the point of giving herself to a man whom he knows is unworthy of her. The story is told with such delicacy of feeling, such beauty of expression, that the reader lingers over every page in spite of the intense interest the recital awakens, and the almost unlooked for happy ending seems the only fitting outcome. Altogether the book is one of the best of the new issues. Like all the publications of this house, the setting of the book is artistically adapted to the text and the broad margins and choice binding give added pleasure to the reading of the book. Houghton, Mifflin & Co., Boston, Publishers.

A feature of the Christmas HARPER'S is an article on birds' eggs by Ernest Ingersoll. The author tells about the size, shape and color of various eggs, and gives an extremely interesting discussion of what differences in these respects signify in the economy of nature. The article is illustrated by eight pages of color photographs of the eggs of eighty-seven varieties of American birds of prey, song-birds, water-birds, and game-birds.

Agriculture at Tuskegee.

The opening of the new Agricultural Building at the Tuskegee Institute, in Alabama, by the Hon. James Wilson, Secretary of Agriculture, on Nov. 30th, and the opening of the large Trades School Building at Hampton last year, as well as the starting of the Trades School Building at Tuskegee, now in course of erection, mark a new era in the history of negro education at the South. More and more Tuskegee is finding out the needs of the colored people in the Black Belt of the South and is shaping its education along the lines of these needs. Eighty-five per cent. of the colored people of the South depend upon agriculture for their living. Since this is true it is most important that they have educated leaders well trained in theoretical and practical agriculture, dairying, horticulture, truck-gardening, stock-raising, fruit-growing, etc. This, in connection with the trades, literary and religious education, Tuskegee is giving special attention to.

Boston has always taken the deepest interest in Tuskegee. Practically the first money to start Tuskegee went from Boston. A meeting in the interest of this work is to be held Sunday evening, December 5th, in the Old South Church, at which Principal Booker T. Washington, Dr. George A. Gordon, Rev. Charles G. Ames, and one or two other prominent persons will speak.

Good Roads Convention.

Snow and a snapping cold day added spice to a very successful convention on Wednesday last at the R. I. College, Kingston. Over one hundred visitors assembled in the college campus where the machinery of the U. S. Government Good Roads Division was in full operation. A champion stone-crusher, propelled by an Ajax portable engine, crunched the rocks at the rate of fifty cubic yards per day. A Champion distributing card received the screened crushed stone from the elevator, carried it to the road bed and then spread it at just the right depth at the rate of two yards in fifteen seconds. A champion road roller compacted the foundation and the successive layers of material. A Champion sprinkling cart added the water to the crushed stone necessary for its best compaction under the roller. The screenings from the crusher added to the surface, sprinkled and rolled, left a road as clean and smooth and comfortable for use as a concrete sidewalk. The width of the road is eighteen feet, nine feet of crushed stone and an equal width of dirt road. A tile drain three feet below the crown of the road bed takes care of the water under the road. The side gutters provide for the quick removal of the surface water. At the convention, Mr. Harrison explained very clearly the method of construction and answered many questions.

Plan for Irrigation.

A good many farmers have been talking about irrigation, and a larger number than ever before in New England will try watering a portion of their crops next summer. Mr. A. E. Gibson, the irrigation expert, gives the following general directions: First, prepare your ground, avoiding steep grades, giving preference to a gentle slope. Plant those things that require least water where they will get the least. Irrigate gradually with a moderate stream. Be careful not to force trees into a late growth that will not harden before winter. Irrigate small fruits while the fruit is maturing. Young trees should be watered freely the first season after setting and also the second. Don't spoil your land and crops by continuous soaking.

How Tobacco is Grown?

DESPITE BAD WEATHER NEW ENGLAND PRODUCERS EXPECT FAIR PROFITS.

The present year has been rather unfavorable to the tobacco growers of New England on account of the excess of rain.

One grower who has produced the crop successfully for about thirty years states that he made only three partial failures during that time; one of them being the past season. The growers who have not already sold their crop, have it in the curing barns ready to be stripped and packed. This process has to be carried on during moist weather, since perfectly dry tobacco leaves cannot be handled without breaking. A successful Connecticut valley grower gives us the following account of the crop:

"I usually start the seed in the house, and when it begins to sprout, sow it in a hot bed about the first of April. The seed is very fine and only a small quantity is needed. The young plants are transferred to the field in May. They will thrive on any good soil not too wet. I use the best soil on my farm, the same piece every year, because richer and more free from weeds. I use no manure on this crop, but fertilize with one ton of cottonseed meal and three quarters of a ton of cotton hull ashes. Havana leaf is the most popular leaf here now, having mostly superseded the old Connecticut seed leaf and other varieties."

"The plants are set in the field eighteen inches apart, the rows three feet apart and given clean cultivation, same as any other crop, with some hand hoeing. We top it when it blossoms out, leaving fourteen or fifteen leaves. The suckers which start afterwards must be twisted off. I go over the field twice for this purpose. Four weeks later, the plants are cut, split and strung on laths, six plants to a lath, and raked away in the barn. When cured dry, we strip and pack in cases when moist enough to be handled. From 1200 to 2000 pounds is the usual product expected."

"We valley growers expect the new tariff will help the price of tobacco somewhat. Last year prices were so unsatisfactory that I held over a part of my crop to sell this year. Tobacco growers are visited by buyers, who purchase the crop at the barns."

Saving and Keeping Garden Seeds

With some vegetables it is worth while to save the seed of choice varieties. With others it hardly pays for the trouble.

Seeds of squashes, cucumbers, tomatoes and melons can be saved with a special advantage, because the grower can easily select the earliest, fairest and most perfect specimens from which to take seed. All these seeds grow in a fleshy pulp which must be thoroughly removed. Allow them to ferment in water for several days, the pulp can then be easily washed away. The seed is then dried by spreading it out in a sunny place. The seeds of the varieties above mentioned will keep better if not allowed to freeze. Store them in a warm, dry room, out of reach of rats and mice. Tin boxes make good receptacles.

Seeds which are gathered plants and all are put in bags and hung from the ceiling of the room. Such seeds as that of beets are cleaned by packing, sifting and picking over.

Most varieties of seeds will keep two years as seen by the table following. Many kinds of seeds will keep five years or longer; onion seed, however, is of little value after the first year. When there is any reason to suspect that seed is old or has not been properly ripened, it is well to test some of it by planting a few in a flower pot in the house. The following table of the vitality of seeds is believed to be the most accurate of its kind, when the seed is kept under favorable conditions:

Artichoke, 5 to 6 years; Asparagus, 2 to 3; Beans, all kinds, 2 to 3; Beet, 3 to 4; Carrot, 2 to 3; Cress, 3 to 4; Corn kept on cob, 2 to 3; Cucumber, 8 to 10; Egg Plant, 1 to 2; Cauliflower, 5 to 6; Celery, 2 to 3; Anise, 3 to 4; Balm, 2 to 3; Caraway, 2; Hyssop, 2 to 3; Onion, 2 to 3; Parsley, 2 to 3; Parsnip, 2 to 3; Pea, 5 to 6; Pumpkin, 8 to 10; Rhubarb, 3 to 4; Squash, 8 to 10; Lettuce, 3 to 4; Melon, 8 to 10; Mustard, 3 to 4; Spinach, 3 to 4; Tomato, 2 to 3; Turnip, 5 to 6; Pepper, 2 to 3; Radish, 4 to 5; Salsify, 2 to 3; Lavender, 2 to 3; Sweet Marjoram, 2 to 3; Summer Savory, 1 to 2; Sage, 2 to 3; Thyme, 2 to 3; Wormwood, 2 to 3.

Have You a Farm

In N. H., Vt., Me., or anywhere else that you want to exchange for a 10-room house near Boston, where there is a chance to start a store, mortgaged to a savings bank for \$1500, will pay cash difference if worth it. P. F. DELAND, 113 Devonshire street, Boston.

Straight Straw Preserving Rye Thresher Combined with Oat Thresher.

Leaves the Straw bound in Bundles as straight as when threshed by hand.

Combined Grain Drill and Broadcast Seeder. Fan Mills. GRANT FERRIS CO., TROY, N. Y.

"The Great Milk-Producing Food of the Age,"

Cream Gluten Meal!

A little higher in price, but of far GREATER FEEDING VALUE. THE ANALYSIS is always printed in large letters on each sack. Always sold in 100-pound sacks, never any other way.

Manufactured by the CHAS. POPE GLUCOSE CO., at Geneva and Venice, Ill. NOT MADE BY A TRUST. ASK YOUR GRAIN DEALER FOR IT.

Read and Run.

—Minnesota's forests are disappearing.

—Dawson City is confronted with probable famine.

—Gloucester's new epoch as a fish-landing port has begun.

—An energetic action for statehood is being made in Oklahoma.

—An advance in price of ten per cent. has been declared on mechanical rubber goods.

—The State Board of Agriculture is inspecting the territory infested by the brown-tail moth.

—The Jewish population of the United States has doubled since 1881 and is now about 1,000,000.

—A new street railway company has been organized to build a line from Northwood to Mansfield.

—The chasing of greased pigs is to be stopped by the Massachusetts Society of prevention of Cruelty to Animals.

—A petition for authority to construct a ship canal across Cape Cod has been filed by W. H. Wardwell at the State House.

—A noteworthy display of children's herbariums was made under the auspices of the Massachusetts Horticulture Society.

—An effort will be made at the Cotton Growers' Convention in Atlanta, Dec. 14, to make a combination to advance the price of cotton.

Connecticut State Board Meeting.

The annual meeting of the Connecticut State Board of Agriculture will be held at Williamstown, Conn., Dec. 21, 22 and 23. The program includes many good features, and is as follows:

Dec. 21. The relation of the Experiment Stations and of the Schools to Agriculture, by Prof. W. H. Brewer, New Haven, Conn.; Will the American Farmer become a Peasant? by Prof. L. H. Bailey, Ithaca, N. Y.; Present Condition and Prospects of Sheep Husbandry, by R. S. Hinman, Oxford, Conn.; The Connecticut Farmer's Opportunities, by J. H. Hale, South Glastonbury, Conn.

Dec. 22. Forage Plants, their Production and Quality, by I. P. Roberts, Director of the Cornell Exp. Station, N. Y.; The Experiment Station. What is its use? Results attained, by Dr. E. H. Jenkins, New Haven, Conn.; Education in the Farm Home, by Dr. George B. Fairchild, Ex-President of the Kansas State Agricultural College, Manhattan, Kansas.

Dec. 23. Milk Production, its Economics and Betterments, by John Gould, Aurora Station, O.; Ornamental Trees and Shrubs, by Edwin Hoyt, New Canaan, Conn.; Here and Now, by Annie Beecher Scoville, Stamford, Conn.

Some Standard Vegetables.

Many of the good old varieties of garden vegetables have hardly been excelled by later comers for general purposes.

The Egyptian beet is a good variety, easy and of good color. The early summer, and late drumhead cabbages are first rate in their line. The snowball is a good cauliflower, and the golden dwarf is a very satisfactory variety of celery. The Simpson lettuce is still a great favorite, also the Hackensack and Nettle Gem muskmelons. Many growers think the old American wonder is the best of all peas. And the acme paragon and dwarf champion tomatoes still lead in some districts. The most popular potatoes are the old standbys, early rose and beauty of Hebron. The above named are not the oldest varieties, but are kinds which have been tested for many years, and their exact value known. Whether or not some of the newer kinds are better, these old kinds are certainly good, and the grower who plants them is sure to get satisfactory results.

Country Real Estate.

Two large farms in Somerset, one known as the Daniel Wilbur estate, and the other as the E. Homer Rice property, are to be sub-divided for building purposes. Two new streets will be laid out through the properties.

The vegetable, fruit and flower farm belonging to Catherine A. Ekinah, situated on Bay street in Sharon, on the main road from Canton to Easton, comprising four acres of land with two cottages, stable, greenhouse, etc., has been sold to Christiana Schaffer of Roxbury, who will continue the growing of flowers for the market.

The Northrup estate on Concord street, Holliston, has been sold to a Boston business man for his own occupancy. The property consists of seven acres of land and modern buildings; terms private.

Maria L. Choate has sold her thirty-three acre farm fronting on Pond street, Franklin, to William E. Patterson of Baltimore, Md. Mr. Patterson buys for a residence.

Joseph Slauenwhite of Waltham, has bought the Olof P. Lindberg sixty-acre grass and fruit farm in Halifax, with all personal property. Mr. Slauenwhite paid about \$3000, and has one of the best grass farms in the town.

Another of the historic farms in Sudbury has changed owners, in the sale of the Willard Walker farm, which is situated about a mile from the Wayside Inn, and has been in the Walker family for more than two hundred years. It consists of 210 acres of tillage, pasture and wood lands, modern buildings and a large greenhouse. It was on this property that the old Walk Garrison house stood at the time of the King Philip war. It was heavily constructed of three thicknesses of oak plank, and contained many pieces of antique furniture. It was destroyed by fire last year, together with all its contents. The grantor of the estate is Charles L. Noyes, whose wife was a Walker, and the buyer is M. B. Hall, of Everett and Malden. The property is valued at \$9200. Included in the sale were all the personal property, valued at \$3000.

THE WORLD OVER.

—Mexico has many undeveloped gold fields.

—Guatemala is preparing for a gold standard.

—Australia is expected to export 5,000,000 bushels of wheat.

—Sir Richard Cartwright favors reciprocity between Canada and the United States.

—The channel islanders are excited over a report that Britain will cede them to France.

—The Spanish fort Palo Alto, on Santiago de Cuba, has been captured by the insurgents.

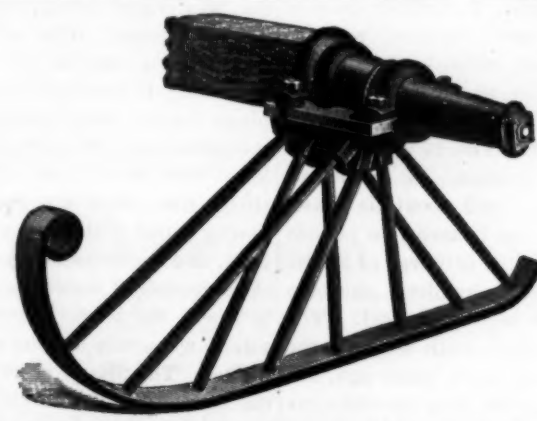
—Queen Wilhelmina of the Netherlands has been told by her privy council that she must give up her wheel.

—Old records of the seventeenth century have been found in Georgetown, British Guiana, which are said to show the justice of England's boundary claim.

—It is reported that King Humbert of Italy will abdicate in favor of his son; the change might dissolve the triple alliance, as the prince prefers Russia to either Germany or Austria.

MAY AT \$6 PER TON

would be cheap, but I have some feed at six dollars per ton that is as nutritious as hay. Of course your cattle must have some hay, but you can feed much less hay, and make up the required weight or bulk, with this feed. Sold in any quantity at 80 cents per ton, delivered at depot in Boston, the bags are 10 cents each, returnable at same price, or you can send your own bags if you prefer. Will send you a trial lot of 300 lbs on receipt of one dollar, which will give a chance to see it and try it on your stock. I have a few small cars of 12 tons each for \$50, you to pay freight from Boston. These would be quite as nice form in quality as those advertised above at six dollars per ton. I will refund \$10 for the bags if returned within 30 days, which will make the cost of 12 tons only \$40. Terms, cash with order. Better be quick and order a car of it. C. A. Parsons, 154 Commercial street, Boston, Mass.



HANDY SLED RUNNERS.

Our advertising patron, The Electric Wheel Co. of Quincy, Ill., are manufacturing Wrought Steel Sled Runners for farm wagons. These runners will fit any farm wagon. You can take off your wheels and fit the runners to your wagon in a few minutes. No tool except an ordinary monkey-wrench is required. The runners are also arranged so that you can make an ordinary bob-sled if desired. When attached to your farm wagon they will track with other sleds, as they are attached to the shoulder of your skids. They are made of wrought steel and will not snap off or break as the ordinary cast iron runners do, particularly in specially cold weather. They are practically indestructible and are guaranteed for the first year. The sled runners have tires 1 1/2 inches wide and 9-10 inches thick, and are sold for \$7.00 per set in four minutes, and they are the greatest convenience possible about farms.

Hood's Pills
Best to take after dinner; prevent distress, aid digestion, cure constipation. Purely vegetable; do not grip or cause pain. Sold by all druggists, 25 cents per bottle. Sold by all Druggists.

MARKETS.

BOSTON LIVE STOCK MARKET

Cattle rule steady—Sheep very firm—Hogs unchanged—Cattle active—Milk cows moderate demand—Horse market dull.

Reported for Mass. Ploughman.

Week ending Dec. 1, 1897.

Amount of Stock at Market.

Cattle, Sheep, Hogs, Veal.

This week, 4,553 11,837 30,700 1,324

Last week, 4,553 11,837 30,700 1,324

One year ago, 3,734 13,242 119 25,129 1,360

CATTLE AND SHEEP FROM SEVERAL STATES

Cattle, Sheep.

Mass., 150 935 29 24

N. Hampshire, 181 181 Rhode Island, 135

Vermont, 158 770 Western, 140 1350

Massachusetts, 226 10 Canada, 7607

Total, 4349 10782

CATTLE AND SHEEP BY RAILROADS, ETC.

Cattle, Sheep.

Pittsburg, 3425 7489 Eastern, 319 2980

Lowell, 189 181 Western, 135

T. A. & S., 335 225 Total boats, 80

Total, 4349 10782

Values on Northern Cattle, etc.

Heef.—Per hundred pounds on total weight of

head, tail and meat, extra, \$5.25 to \$5.75; first

quality, \$4.75 to \$5.00; second quality, \$4.25 to \$4.50;

third quality, \$3.75 to \$4.00; a few choice single

steers, \$6.00 to \$6.50; of the poorest, bulls,

\$2.50 to \$3.00.

Working Oxen.—\$4.00 to \$5.00; heavy steers, \$5.00

to \$6.00, or according to their value for beef.

Cows and Young Cattle.—Fair quality, \$2.50

to \$3.00; extra, \$3.50 to \$4.00; fancy milch cows, \$5.00

to \$6.00; and dry, \$2.50 to \$3.00.

Stores.—Two young cattle for farmers; year-

lings, \$8.00 to \$10.00; three-year-olds, \$12.00 to \$15.00;

four-year-olds, \$15.00 to \$20.00.

Sheep.—Per pound, live weight, 2¢ to 3¢; extra,

2 1/2¢ to 3¢; sheep and lambs, 1 1/2¢ to 2¢; in lots,

\$2.50 to \$3.00; lambs, 4¢ to 5¢.

Fat Hogs.—Per pound, 3¢ to 4¢; live weight,

shotes, wholesale, 1¢ to 1 1/2¢; retail, 1 1/2¢ to 2¢; corn-

ed hogs, 4¢ to 5¢.

Veal Calves.—2 1/2¢ to 3¢; live weight, 1 1/2¢

to 2¢; Males.—Brighton, 7¢ to 8¢; country lots,

4¢ to 5¢.

Calf Skins.—80¢ to \$1.00.

Tallow.—Brighton, 3¢ to 4¢; country lots, 1 1/2¢

to 2¢.

Pelts.—40¢ to \$1.00; country lots, 40¢

to 50¢; dry, 30¢ to 40¢.

ARRIVALS AT THE DIFFERENT YARDS.

CATTLE, SHEEP, HOGS, VEAL, HORSES.

Watertown, 3611 9,002 11,470 54,500

Brighton, 738 1,180 12,758 373 60

General Live Stock Notes.

The market sums up good totals of Live Stock

this week, unless we expect much more. Plenty

of beef cattle which were selling at steady prices.

Western steers were the best, and the market

cattle are all through this season for this market.

And dealers in Western live cattle from

that source well and for beef. The market

rule too high for our butchers to buy freely from

that source, but a few weeks may bring a remedy.

For market steady. Veal calves are in good

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MASSACHUSETTS PLOUGHMAN

BOSTON, MASS., SATURDAY, DECEMBER 4, 1897.

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Mass., 150 935 29 24

N. Hampshire, 181 181 Rhode Island, 135

Vermont, 158 770 Western, 140 1350

Massachusetts, 226 10 Canada, 7607

Total, 4349 10782

CATTLE AND SHEEP BY RAILROADS, ETC.

Cattle, Sheep.

Pittsburg, 3425 7489 Eastern, 319 2980

Lowell, 189 181 Western, 135

T. A. & S., 335 225 Total boats, 80

Total, 4349 10782

Values on Northern Cattle, etc.

Heef.—Per hundred pounds on total weight of

head, tail and meat, extra, \$5.25 to \$5.75; first

quality, \$4.75 to \$5.00; second quality, \$4.25 to \$4.50;

third quality, \$3.75 to \$4.00; a few choice single

steers, \$6.00 to \$6.50; of the poorest, bulls,

\$2.50 to \$3.00.

Working Oxen.—\$4.00 to \$5.00; heavy steers, \$5.00

MASSACHUSETTS PLOUGHMAN

BOSTON, MASS., SATURDAY, DECEMBER 4, 1897.

MARKETS.

BOSTON LIVE STOCK MARKET

Cattle rule steady—Sheep very firm—Hogs unchanged—Cattle active—Milk cows moderate demand—Horse market dull.

Reported for Mass. Ploughman.

Week ending Dec. 1, 1897.

Amount of Stock at Market.

Cattle, Sheep, Hogs, Veal.

This week, 4,553 11,837 30,700 1,324

Last week, 4,553 11,837 30,700 1,324

One year ago, 3,734 13,242 119 25,129 1,360

CATTLE AND SHEEP FROM SEVERAL STATES

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Vermont, 158 770 Western, 140 1350

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steers, \$6.00 to \$6.50; of the poorest, bulls,

\$2.50 to \$3.00.

Working Oxen.—\$4.00 to \$5.00; heavy steers, \$5.00

to \$6.00, or according to their value for beef.

Cows and Young Cattle.—Fair quality, \$2.50

to \$3.00; extra, \$3.50 to \$4.00; fancy milch cows, \$5.00

to \$6.00; and dry, \$2.50 to \$3.00.

Stores.—Two young cattle for farmers; year-

lings, \$8.00 to \$10.00; three-year-olds, \$12.00 to \$15.00;

four-year-olds, \$15.00 to \$20.00.

Sheep.—Per pound, live weight, 2¢ to 3¢; extra,

2 1/2¢ to 3¢; sheep and lambs, 1 1/2¢ to 2¢; in lots,

\$2.50 to \$3.00; lambs, 4¢ to 5¢.

Fat Hogs.—Per pound, 3¢ to 4¢; live weight,

shotes, wholesale, 1¢ to 1 1/2¢; retail, 1 1/2¢ to 2¢; corn-

ed hogs, 4¢ to 5¢.

Veal Calves.—2 1/2¢ to 3¢; live weight, 1 1/2¢

to 2¢; Males.—Brighton, 7¢ to 8¢; country lots,

4¢ to 5¢.

Calf Skins.—80¢ to \$1.00.

Tallow.—Brighton, 3¢ to 4¢; country lots, 1 1/2¢

to 2¢.

Pelts.—40¢ to \$1.00; country lots, 40¢

to 50¢; dry, 30¢ to 40¢.

ARRIVALS AT THE DIFFERENT YARDS.

CATTLE, SHEEP, HOGS, VEAL, HORSES.

Watertown, 3611 9,002 11,470 54,500

Brighton, 738 1,180 12,758 373 60

General Live Stock Notes.

The market sums up good totals of Live Stock

this week, unless we expect much more. Plenty

of beef cattle which were selling at steady prices.

Western steers were the best, and the market

cattle are all through this season for this market.

And dealers in Western live cattle from

that source well and for beef. The market

rule too high for our butchers to buy freely from

that source, but a few weeks may bring a remedy.

For market steady. Veal calves are in good

demand and sell at firm

THE HOUSEHOLD.

BEDTIME.

Three little girls are weary,
Weary of books and of play;
Slowly the time slips away,
Six little feet are aching,
Bowed is each little head,
Yet they are up and shaking
When there is mention of bed.

Bravely they laugh and chatter,
Just for a minute or two;
Then when they end their chatter
Sleep comes quickly to woo.
Slowly their eyes are closing,
Down again drops every head,
Three little maids are dozing,
Tho' they're not ready for bed.

That is their method ever,
Night after night they protest,
Claiming they're sleepy never,
Never in need of their rest;
Nodding and almost dreaming,
Drowsily each little head
Still is forever scheming
Merely to keep out of bed.

—Chicago Post.

A BORROWED BACK-YARD.

The Little Boy had always "boarded." Twice since he could remember, he had been to the seashore; to the country, never. He knew very little of growing things, except trees and plants in pots. When his father rented a house, and they were to live all over it, the Little Boy hoped there would be a yard. There was a yard behind the house, a very small yard, and it was bricked all over. There was not a bit of green, except where weeds came up between the bricks.

The Little Boy was very much disappointed.

"I hoped there would be grass and maybe flowers," he said.

"I hope you can have a yard to play in some time," said mother. "But you have a whole house to yourself now; isn't that enough at one time?"

"Yes," said the Little Boy. "I suppose it is, only I had hoped there would be grass in the yard, at least grass."

The Little Boy helped his mother put the house to rights. There was some new furniture and some old furniture which had belonged to the Little Boy's grandmother. It had been "stored," and the Little Boy couldn't remember it at all.

It was such fun to live in a whole house!

"The folks across the street have a yard, mother," cried the Little Boy one morning. "See that openwork iron gate, and that long brick wall by the house? It's back of that, mother. I went over and looked through. There is grass, mother, there is grass, and a flower-bed. I saw them myself, mother," said the Little Boy.

That afternoon the Little Boy had more news about the folks across the street.

"There's a little girl, mother," he said, "a little girl in a blue dress. She was climbing on the openwork iron gate. May I sit on our front steps, mother?"

Mother said "Yes," and the Little Boy went and sat on the front steps.

The Little Girl soon called to him.

"O Little Boy," she called, "come across the street. I can't come out because the gate is locked."

The Little Boy ran quickly across the street.

"You have a back-yard, haven't you?" he said, pleasantly. "Ours is only bricks."

"Yes," said the Little Girl in a most friendly way. "If the gate wasn't locked I'd show you my flowers. I have a rose-bush. Have you a rose-bush, Little Boy?"

"No," said the Little Boy, soberly.

"There aren't any flowers yet," said the Little Girl. "It's too soon for roses, but wait a minute, and I'll pick you a leaf."

The Little Boy watched the Little Girl's blue dress as it whirled around the corner of the house. She soon came back with a spray of pinkish-green rose leaves only partly opened. She poked it through the openwork iron gate until it fell on the pavement outside, where the Little Boy picked it up.

Some grown-up persons called, "Supper's ready, Miss Isabel," and the Little Girl had to say "Good-night," and go in.

"To-morrow I'll get the gate unlocked and show you my garden," she said.

The Little Boy took his rose-leaves home. He was very happy. He put the rose-leaves in water because it was so kind of the Little Girl to give them to him.

As soon as breakfast was over next day, the Little Boy took his paper soldiers and went to sit on the front steps. It was a long time before the Little Girl came. The postman and ice-man had both come and gone, and a man crying early strawberries had disappeared down the street.

At last the Little Girl came, and called to the Little Boy to come over.

"We are going away to-morrow," she said.

This was bad news for the Little Boy.

"I didn't suppose people with back yards went away," said he.

"We're going to the mountains for three months," said the Little Girl. "We take the baby, and Matilda, and all my dolls."

"What do you do with the back-yard?" said the Little Boy.

"I might lend that to you," said the

Little Girl, thoughtfully. "I'll ask mother if I may."

That afternoon because the sun was hot on the front steps, the Little Boy played train in the house. At four o'clock the door-bell rang. It was a lady—the lady who lived with the Little Girl where the back-yard was. She was the Little Girl's mother. She smiled in the same way the Little Girl smiled. She came to see the Little Boy's mother.

"If you are not going away this summer," she said, "I thought perhaps the Little Boy might like to play in our yard sometimes. It is generally cool and shady, and my Little Girl has planted some seeds which will blossom before she comes back. Your Little Boy can water them, and pick the flowers. All children love flowers so, and I know you have no place for them in your yard."

"You never did a kinder thing in all your life, I am sure," said the Little Boy's mother. "I can't tell you how grateful the boy's father and I will be."

"Can I go on the grass?" asked the Little Boy.

"Indeed you may," said the Little Girl's mother, and she kissed the Little Boy's mouth.

So the Little Boy had the key to the openwork iron gate, and went in and out as he chose. He watered the flowers, and when they bloomed he was almost too excited to sleep at night until they bloomed. You see, he did not know what they would be like until they blossomed. There were nasturtiums, they blossomed all the time after they are started, and there were a few fine red poppies, and a few dear pansies, and some morning-glories; yes, and the rose-bush blossomed. The roses were pink. The first one was almost too precious to pick!

A man came once in a while to cut the grass, but the Little Boy and his mother took all the care of the flowers. The paper soldiers marched among the pansies, and the toy ship sailed in the grass. It was a happy summer.

One night after dark—it was autumn now—the Little Girl and her mother and father and the baby and Matilda and the dolls came home from the mountains.

The Little Girl's cheeks were brown, but they were hardly browner than the Little Boy's. He had been farming in the sunshine. His cheeks were brown, too.

The next morning he went over and rang the door-bell. The Little Girl and her mother came down stairs when they saw who was at the door.

"Here's the key to the openwork iron gate," said the Little Boy; "and I want to return that back-yard I borrowed. I'm ever so much obliged."—Frederic L. Ballard in the Sunday School Times.

The Squirming Pod.

The first time one of these curious pods began to squirm in my hand, it made me squirm, too, for it felt like a number of very lively caterpillars wriggling away for dear life. Try it yourself, and see if you can keep still.

But before you can do so, I must tell you its name, and where to find it, mustn't I? It is the fruit of quite a common plant called jewel-weed, touch-me-not, or lady's ear-drops.

The plant is coarse and two or three feet tall, with pale yellow or orange-colored blossoms, which hang down. Look for it along streams and the edges of ponds and other damp places. I have found both fruit and blossoms in August, September and October.

The pods are innocent-looking green things like hanging on slender stems. But you can't trust their looks, as you find out when you try to pick one. The moment you touch the pod it gives a squirm and a wriggle in your fingers, and there is nothing left for you to take hold of.

What has become of it? Try another, and this time go about it more carefully, and see if you can't catch it in the act. Hold one hand open under the fattest part of the pod you can find, while with the thumb and finger of the other you gently snap the stem, taking care not to touch the pod. It drops ripe enough, the instant it drops into your palm you will see it squirming violently, as if it had certainly come to life, while the seeds fly in all directions.

If you have not been startled into spilling everything out of your hand you can easily see what has happened. Instead of one fat green pod you find six green things, five of them much alike and coiled up, while the sixth is not coiled. These are the five sections of the shell and the central column to which they are fastened. By the bursting of the pod the seeds have been fired several feet away to begin a plantation of jewel-weed in a new place. Take a smaller pod that is not yet ready to burst and you will find the parts as I describe them.

If I am not mistaken you will be eager to try another pod in spite of the squirming. I confess that I never can resist firing off a few when I find a plant, and it always gives me the same creepy feeling. I like to surprise my friends with them, too. Once I tried to carry a boxful to school to show to my children, and you can guess what was left when I got there. Of course the pods had all burst, and I had to take the class to the place where they grew.

Now you will think it great fun to

send off the pods in this way; but do you suppose it is done all for your amusement? No, indeed! I am sure that you must know that there is a good reason for everything that happens in nature, though we do not always find it out. It is part of the plant's business in life to get its seeds scattered, and as these seeds have no hooks by which to catch on to men or animals, cannot be blown away by the wind, and are not the kind that can be safely carried by birds, Mother Nature distributes them in this way.

Nature never seems to do the same thing twice alike. We can find several different ways of seed-scattering in the family of the jewel-weed belongs to—the Geranium family. There is the way of the common yellow wood-sorrel that grows in every back yard and all summer long. The wild geranium or cranesbill has another. This you must look for in June. The most curious of all the ways that I know of in the family is that of a little western plant called stork-bill or flaccid. I have written about these different ways elsewhere, so I shall leave you to keep your eyes wide open and make your own discoveries, which I am sure you will enjoy very much.—Mary Mann Miller in Primary Education.

THE HOME CORNER.

FREE PATTERN.

By special arrangement with the BAZAR GLOVE-FITTING PATTERN CO., we are able to supply our readers with the Bazar Glove-Fitting Pattern at very low cost. It is acknowledged by every one that these patterns are the simplest, most economical and most reliable patterns published. Full directions accompany each pattern, and our lady readers have been invariably pleased with them in the past. The coupon below must accompany each order, otherwise the pattern will cost the full price.

MASS. PLOUGHMAN COUPON.

Cut this out, fill in your name, address, number and size of pattern desired, and mail it to—
"THE HOME CORNER, MASS. PLOUGHMAN,"
BOSTON, MASS.

Name.....

Address.....

No. of Pattern.....

Size.....

Enclose ten cents to pay expenses.



7227—Misses' Fancy Waist.

Fancy waists of all styles are much in vogue. The model shown is well adapted to all plain materials. As illustrated, it is made of diagonal serge in reseda-green combined with Roman-striped taffeta and trimmed with braid ornaments. At the waist is worn a sash of Roman ribbon, at the neck a full collar of soft silk surmounted by a rill of lace. The foundation is a fitted lining. The backs fit smoothly across the shoulders with the fullness drawn in at the waist line. They are joined to the fronts by means of smooth underarm gores. The full piece of silk is attached to the lining, as are also the fronts of serge. The closing is effected invisibly at the centre-back, but, if preferred, the lining may be made to close in the front and the outside material be hooked over into place. The sleeves are two-seamed and fit snugly. At the shoulders are small puffs below which and at the wrists the braid trimming appears. To make this waist for a miss of fourteen years will require two yards of forty-four-inch material. The pattern, No. 7227, is cut in sizes for misses of twelve, fourteen and sixteen years. With coupon, ten cents.

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Gas and dust are enemies to plants. The former must be prevented by proper regulation of the heating apparatus, and the latter by regular washing of the foliage, says the Woman's Home Companion. In spraying or sponging the foliage do not neglect the under sides of the leaves, for it is there that insects first make their appearance, and regular sponging will prevent them from starting or spreading.

The temperature is another matter for consideration. In the average living room the temperature should be from 68 to 70 degrees Fahrenheit, which for the majority of plants will do very well; but there are some, such as carnations, violets, primroses, callas, etc., which will thrive better in a room where the temperature is from eight to ten degrees lower. At all times guard carefully against placing plants where they will be subject to cold drafts, which are injurious and often produce mildew if the foliage is damp.

Another important part in the cultivation of house-plants is the watering, which influences to a great extent success or failure. To lay down specific rules for watering would be a difficult matter. Too much water will rot the roots, sour the soil and stop the growth of the plant, and not enough will starve it. The general tendency is to over-water. Supply water liberally when necessary, then withhold it entirely until the soil is in condition to be watered again. The soil in the pot should not be allowed to become dry like dust, but just so it will crumble nicely in the hand. Avoid by all means the ruinous practice of watering the plants daily, whether they need it or not. Plants in small pots usually dry out quickly, but this may be prevented by placing them on trays or saucers on which there is an inch or two of clean sand.

As to the best location in the room for plants, place them where they will get the greatest amount of fresh air, light and sunshine, which is usually by the windows. Flowering-plants should be given all the sunshine possible. Foliage-plants do not require sunshine—that is, it is not absolutely necessary—but do not consign them to a dark corner for that reason.

I learned a short time ago how to get the most out of the hog; how to "do him up" in the best way, says Mrs. Mary Fulton in an exchange. A German woman helped us at butchering time, and I learned so much about the art of pork preservation that I want to let some one else know the way.

We butchered in the evening, and the next morning began work upon the hog. (It is best to have a man to assist at times.) Lay the hog upon a strong table and cut off the head; place it in water to soak out the blood; split down the back, making two parts; remove the lard; take out the ribs without too much fat upon them and lay aside. Along the back is a strip of lean meat called tenderloin, cut this out and lay aside with the ribs. Take a sharp knife and cut around the hams and shoulders, and put them aside. Take out the backbone. If the hog is very fat, trim off all surplus fat and try out as lard. If you wish to smoke the side meat, cut it in strips crosswise, or up and down, and lay with the hams and shoulders.

Have a dish or pan to hold all the lean trimmings for sausage, put in some fat, but not too much. In another pan put all the small bony pieces, to be used in soup—the heart and tongue make soups—the feet and shanks may go into the soup, or pickled meat. If you prefer, try down the hams and shoulders and other parts you wish to keep fresh. To do that remove the hide or skin (you will need a sharp knife), and try in the usual way; when almost done pack in gallon or four-gallon crocks, and be sure to cover well with the gravy or grease. If you have not enough, try some side pork. This will be very convenient for warm weather. It is best to salt down some of the side meat for salt pork is a handy article of food to cook with in other articles. A large covered stone jar is best to salt pork in.

Let us see what we have: Some pork salted down, the hams, shoulders and some side meat fried down, or in preparation to smoke; a jar of sausage (if you wish this to keep cover it with a greased paper, and run an inch of lard over the cover, or clean the intestines and fill them); at least a gallon of pickled soups, the ribs to bake, tenderloin to fry while fresh, and some large bones to boil or cook with vegetables; also a quantity of lard.

Then there is the head. I will suppose it white and free from blood; put it upon the table, after dividing it into two parts. Take out the eyes, cut off the ears, and dig them out clean, remove the brain and clean the head perfectly; cut out from the fat parts of the cheeks of the hog, or the side of the face, a large piece of fat, which will make the head-cheese too fat if left in. Boil the head. When well done, look it over carefully, remove all the bone, and while yet warm, season and mix well. Tie in a strong cloth and press it; set away with the weight upon it

over night, and by morning you will have a nice mold of head-cheese. The fat pieces cut from the head may be boiled, run through the sausage mill and mixed with one or two cupfuls of rice and oatmeal and seasoned. This makes an excellent breakfast dish.

A hog made up in this way gives a variety of dishes, and is enough to last a good-sized family six months. More explicit directions for the making of soups, head-cheese, etc., are to be found in any good work on the subject, and will give the novice all the help she needs.

To wash flannels, shave a quarter of a pound of soap into a granite saucepan, add one quart of boiling water, stir over the fire until dissolved. Pour this into a tub half filled with water at a temperature of 100 degrees Fahrenheit. Mix well. Have on the left side of the tub a bucket of clear, warm water, 100 degrees Fahrenheit, into which you may put a half teaspoonful of household ammonia. Take each piece of flannel singly and immerse it in the suds. Soap should never be rubbed on flannels, nor should flannels ever be rubbed on a board. Wash them by pressing and drawing through the hands, rubbing the soiled places quickly with the hands. Rinse at once in clear water, and wring by pressing one hand under the other, or through a wringer. Never twist in the wringing. Shake well and hang to dry immediately; then proceed to wash the second piece. The flannels when nearly dry must be taken from the line and pressed with a hot iron. Be careful that it is not, however, too hot, or it will destroy the color. Flannels washed this way will retain their soft texture and original size until completely worn out. No deviations from these directions, however, can be made. For colored flannels make a suds as above. To the warm water for rinsing add four tablespoonfuls of white wine vinegar, or a tiny bit of acetic acid which has been thoroughly dissolved. It is always well to wait a bright day before washing flannels. They should be dried as quickly as possible.—Mrs. Rorer in Ladies' Home Journal.

—THE—
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Cook Book,
By Fannie Merritt Farmer,
Principal Boston Cooking School,
Will be sent to any of our subscribers on receipt of—
\$1.50.
Regular Price \$2.00.
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IDEAL GRANDMOTHERS.

Women Who Know the Laws of Nature and Obey Them May Live to Green Old Age.



Mrs. Pinkham Says When We Violate Nature's Laws Our Punishment Is Pain—If We Continue to Neglect the Warning We Die.

Providence has allotted us each at least seventy years in which to fulfill our mission in life, and it is generally our own fault if we die prematurely.

Nervous exhaustion invites disaster. This statement is the positive truth. When everything becomes bloated and you cannot walk a few blocks without excessive fatigue, and you break out into perspiration, and your face flushes, and you feel excited and shaky at the least provocation, and you cannot bear to be crossed in anything, you are in danger; your nerves have given out; you need building up at once! To build up woman's nervous system and store woman's health, we know of no better or more inspiring medicine than Lydia E. Pinkham's Vegetable Compound. Your ailment taken in time can be thrown off, if neglected it will run on into great suffering and pain.

Here is an illustration. Mrs. Lucy Goodwin, Holly, W. Va., says: "I suffered with nervous prostration, faintness, all-gone feeling and palpitation of the heart. I could not stand but a few moments at a time without having that terrible bearing-down sensation."

"When I commenced taking Lydia E. Pinkham's Vegetable Compound I only weighed 103 pounds, and could not sit up half a day; before, however, I had used a whole bottle, I was able to be about. I took in all about three bottles of the Compound, and am entirely cured; now I weigh 131 pounds and feel like a new woman, stronger and better than ever in my life."

So it transpires that because of the virtues of Mrs. Pinkham's wonderful Compound, even a very sick woman can be cured and live to a green old age.

Teachers Wanted!

Union Teachers' Agencies of America.

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THE HORSE.

Good horses are essential to prosperity in any country, and American farmers are every year now losing the best markets of the world by not breeding high-class draft and coach horses to supply the city and export markets. Most of these markets wait five or ten years for farmers to breed up and mature good horses. Those who get the good mares will be first to get into market with good horses, and those who have to grade up will find it a long way off. There are but few good mares left and still less stallions, not enough to supply the demand when breeding begins—Western Agriculturist.

"Splints."

The shank bone, as it is termed, is made up of three bones, the large one called the metacarpal, and a small one on either side termed the small metacarpals, or commonly the splint bones, doubtless so called because the ancient farmers thought they had splintered off the large bone. Be this as it may, in a sound horse these three bones are separate and distinct, the small ones being held to the larger bone by a fibre-like attachment, which is called the interosseous ligament. It is important to remember this in order to understand any thing about true splints and false splints.

A splint is a bony enlargement; when it is situated on the body of the small splint bone it is termed a false splint, but when it is situated at the ligamentous attachment of the small bone to the large one it is then a true splint.

The false splint rarely causes trouble of any moment, supposing by ordinary treatment of cold water to arrest the slight amount of inflammation it occasions, the application of a counter irritant and rest.

The true splint is, however, a more serious affair. The inflammation lies between the two bones. The interosseous ligament referred to becomes inflamed, and this results in an entire change from ligament into bony tissue, for the small bones become united to the large. While this is going on there is much pain and lameness, although there may not be much external evidence of trouble to the ordinary observer.

No enlargement is to be seen and hardly anything can be felt, but there is the lameness, all the same, the doctor came in at last, and he placed his finger on the spot or seat of trouble between the two bones. He presses the part and the horse responds to the question by showing that it gives him pain, and rears up to mark his response with emphasis. This is how the horse patient talks to his doctor.

Energetic treatment is needed, or serious changes develop which become permanent. Cold water spray and bandages should be used constantly till the inflammation subsides. Ice bags aid in this, but need not be used too long. Avoid chilling the part. When the inflammation subsides, blistering or counter-irritation is recommended by some doctors; others advise felling, i. e., the actual cautery, while others recommend cutting under the skin with a proper bistoury on to the splint and dividing the periosteum or membrane that covers the bones.

There are splints of different shapes, sizes and positions, each needing particular treatment. One may need repeated blisters, another iodine preparations to set up deep absorption, another will be best treated by inserting the hot iron into it—what is termed pyro-puncture—another may need a deep straight line right through it, and there are splints that yield to the operation under the skin, which is called subcutaneous periosteotomy. This is a neat operation, and successful one when done by an expert, leaving little or no blemish, while the actual cautery always leaves its mark behind, which is an eyesore and a blemish for high-grade pleasure horses.

One might ask why use cold applications at first if it is necessary that inflammation should be set up by blisters and felling? External counter-irritants tend to appease deep-seated inflammation, and it has been found in practice that cold applications to begin with leave less turn of face of the leg afterward.—Baltimore Sun.

Boston Cooking School.

All ingredients mentioned in the following recipes are measured level.

Sufficient variety was given in the lesson at the rooms of the Cooking School, 372 Boylston St., Wednesday morning, December 1, to suit every taste. Some of the most important principles of cooking were illustrated, the making of brown soup stock in the Julien soup, yeast mixtures in the buns, and the utilization of left-overs in an attractive and nutritious manner in Hashed Mutton. The full program was Julien soup, Broiled Steak with Horseradish, Oysters and Bacon, Hashed Mutton, Buns, Baked Bananas and Fig Pudding with Lemon Sauce.

JULIENNE SOUP.—This soup is really a brown soup stock, cleared, and different vegetables added. Usually in Julien soup, the vegetables are cut in match-like strips, but for variety they may be cut in fancy shapes with small vegetable cutters. For a satisfactory brown soup stock, the proportions should be from one-half to two-thirds lean meat, the remainder bone and fat. The bones and remnants left from roast beef, steak, chops and poultry may be utilized in making soup stock, but the proportions must be kept as above. If a large amount of bone is used, the stock is gelatinous, but lacks in color and flavor. If not enough bone is used, the stock will not be gelatinous, and will not keep as long. If it is desired to keep it for any length of time, the vegetables should not be cooked in it or it will spoil more quickly. When purchasing meat for soup stock, shin beef may be selected, choosing that which is not too far down, where the proportion of bone is larger. The middle cuts are best. Or, if the lower cuts of the shin are used, the deficiency of lean meat may be supplied by using a cheap cut from another part, as from the neck. For cooking soup, a closely covered granite kettle or a soup digester are best to use. An iron kettle may be used if perfectly smooth. Remove the lean meat from six pounds of shin beef, and cut into one and a half inch cubes, to facilitate the extraction of the meat juices. Brown one-third of it in a little of the marrow from the bone, which will give a rich brown color to the soup. Add the remainder, with the fat and bone, to three quarts of cold water, the rule being to allow a pint of water to each pound of meat. Let stand half an hour. Then add the browned meat, rinsing out the pan carefully, heat gradually, and let simmer six hours. Add one-third cupful each of carrot, turnip, onion and celery cut into dice, two sprigs of parsley, a sprig of thyme, savory and marjoram and half a teaspoon of peppercorns, with salt to taste. Simmer one hour longer, strain and cool. When ready to use the soup, remove the fat (but not before, as this prevents it from spoiling easily), then clear, using the white and shell of an egg to each quart of stock, adding them when cold, beating the white slightly and breaking the shell into bits. Stir the stock constantly until the boiling point is reached, let boil two minutes, then set back on the stove and allow it to simmer for twenty minutes. Remove the scum and strain through a double thickness of cheese cloth laid in a fine strainer.

Before serving the soup, add one-third cupful of peas which have been removed from the can and rinsed in cold water, and one-third cupful each of carrot and turnip cut in strips or fancy shapes, which have previously been cooked in boiling salted water. If cooked in the stock it will not only be a waste of the stock but give too strong a flavor.

Clear soups are more suitable to serve at the beginning of a heavy dinner than cream soups or broths, being stimulating in their effect. Most of the nutritive elements are lost in the clearing, however, and it is desired to serve a broth or without clearing, remove the scum as it rises to the top in the cooking.

BROILED STEAK WITH HORSE RADISH.—Wipe over a sirloin or rump steak with a piece of cheese cloth wrung out in cold water, remove all superfluous fat and place on a broiler which has been heated or wiped over with a bit of fat. Broil over a clear fire six or eight minutes, searing the surface on both sides first, turning frequently. If necessary to turn around when broiling it should not be pierced with a fork. Remove to a hot platter and spread over it the following mixture which should be prepared before the steak is broiled. Cream quarter of a cupful of butter and mix with a third of a teaspoonful of salt, one-eighth of a teaspoonful of pepper and two tablespoonfuls of grated horseradish, using the fresh root, not the bottled. A cross cut rump steak was served at the Cooking School, which, if the second or third cut is obtained, gives a solid piece of meat with small amount of muscle, and but little waste.

OYSTERS AND BACON.—Clean and pick over carefully oysters, not selecting the large ones, dry on a towel, and wrap around each a very thin slice of bacon, from which the rind and smoky edge has been removed, covering the oyster all over. Fasten with a small wooden skewer. Put them in a broiler placed over a dripping pan, and bake in a hot oven until the bacon is crisp, turning once during cooking. They will be done in from twelve to fifteen minutes. These were served around the steak.

Another way of serving them is to spread the bacon thinly with mustard mixed as for table use, adding a little Worcestershire sauce, also. If liked, then wrap the oyster around as before. These would have been too hot to serve with the horseradish sauce with the steak.

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HASHED MUTTON.—Chop remnants of cold mutton, not too finely, and heat through in a well buttered frying pan, being careful not to over cook or it will be hard. Season with salt, pepper, celery salt and a few drops of onion juice, dredge with flour and add hot water or stock to moisten. A few mustard seeds and sherry wine would improve the hash for some people. Serve the hash on small rounds of toast. The onion juice may best be obtained by pressing the cut surface of an onion on a grater with a rotary motion.

BUNS.—Scald one cupful milk, add one-half cupful sugar and one-half teaspoonful salt; when lukewarm add one yeast cake dissolved in one-fourth cupful of water, and one and one-half cupfuls flour; cover, and let rise until light; add one-third cupful butter, one-half cupful sugar, one-half cupful raisins stoned and cut in quarters, one teaspoonful lemon extract and enough flour to handle but not to knead. Let rise, shape with floured cutter, let rise again, and bake. Just before baking, brush over with yolk of egg diluted with cold water. This is an old fashioned recipe but a good one. Currants may be used in place of the chopped raisins, if preferred, using a smaller quantity, and a piece of chopped lemon rind in place of the lemon extract. If the butter is softened over hot water, it will be easier to mix it in.

If the sponge is to rise over night, less yeast should be used, and if the rising must be hastened, a larger quantity will be required. It is better to set yeast mixtures to rise in the day time, for they can be more carefully watched and the temperature kept even. Yeast mixtures require a temperature of about 65 degrees, or the temperature of an ordinary living room. A good way to keep the sponge at an even temperature is to set it in a pan of warm water, keeping the water at a temperature of about 100 degrees.

BAKED BANANAS.—Arrange the bananas in a shallow pan, cover, and bake until skins become very dark in color from fifteen to twenty minutes. Remove from skins and serve hot, sprinkled with sugar. These may be served either with the morning cereal, or as an entree or dessert. A good way to serve them is on sections of sponge cake with lemon juice or wine poured over.

FIG PUDDING.—To one-half pound of figs finely chopped add one-fourth pound suet and one sour apple (also chopped), and one-fourth pound light brown sugar. Pour over one-fourth lb. of bread crumbs one-fourth cupful milk. Add the yolks of two eggs beaten stiff; combine mixtures, add three ounces of flour, beat well, and then add the whites of two eggs beaten stiff. Turn into a buttered mould and steam four hours. Serve with Lemon Sauce.

Bakers' bread gives a more delicate pudding than home made, being dryer. Crumb only the inside, rejecting the crusts. If one has a meat chopper, much time will be saved by chopping the suet figs and apples all together. The recipe is given in all weights, instead of as usual, but is easily reduced to cupfuls by reference to the tables in any good cook book. Three ounces of flour will equal about a half cupful. This is a delicious pudding, and not too rich.

LEMON SAUCE.—Cream one-third cupful butter, add one cupful sugar and two eggs slightly beaten. Cook a two-inch strip of lemon rind in three-quarters cupful water five minutes; remove the rind, and add water gradually to the egg mixture. Cook in a double boiler until the mixture thickens, then add one and one-half teaspoonfuls lemon juice. This sauce, which is a good one, could also be served with baked bananas being said.

The next lesson at the Cooking School will be given at its new rooms, 372 Boylston St., Wednesday morning, December 8, beginning at ten o'clock. The program will be Scotch Soup, Pinner Haddie, Cole Slaw, Loaf Bread and Biscuits, Swedish Waters and Quince Ice Cream. Single admission, fifty cents.

Our Feathered Friends.

The great service of birds is for the destruction of insects. The snipe and woodcock protect the soil below the water. Blackbirds, thrushes, larks and even crows, remove a great many insects from the surface. Woodpeckers, chickadees and creepers are constantly searching for insects in tree trunks. Warblers and fly catchers are among the many varieties of birds that feed on insects that destroy foliage. The exhibition case of the Massachusetts Gypsy Moth Committee shows a great number of birds which feed upon the dangerous gypsy moth. In case of unusual invasions of insects, like the army worm or grasshopper, the birds join common cause with man and quickly lesson the numbers of the invaders. Save the birds and save the crops.

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Any housekeeper who once tries Leavitt's Non-Boll Over Double Boiler, made of aluminum, will decide that it is henceforth a household necessity. The food does not dry up or burn in it, it will not boll over, it is nearly seamless, as it has a condensing cover, and there are no seams in it to rust out. These are but a few of its many good qualities. Buy one and find out the rest for yourself.

Roots For Winter Feeding.

We have just finished storing beets and turnips. The longer we grow and feed them the more we appreciate them. The spring was unfavorable for the germination of beet seed, consequently one entire lot of beets failed and we have only half our usual amount. We supplemented this with a larger sowing of turnips in the fall, which have done well. While turnips are not equal to beets or mangels they cost less and furnish sheep and cattle succulent feed at a time when they need a change or relish with dry feed. Herein is the special value of roots. They have not in themselves enough dry matter to make them a substitute for grain and fodders, but daily rations of roots tone up the appetite and help digestion to a larger per cent. of the coarser and richer feeds is digested.

As a help to keep animals in condition during our long winters and late springs roots have no equal when grass and clover are not available. We cannot grow roots as well nor feed them as well as the English farmers can, as their growing season is less subject to drouth and their normal amount of moisture is in excess of ours. We cannot let the sheep harvest the turnip crop in the field because our winters are not so open. This necessitates the extra labor of putting into cellars or pits and taking them out to feed. The turnips thus handled are not so crisp and sweet as those eaten in the field. For the small farmer with his barns arranged to house all his stock and not provided with a silo roots have the greatest value.

We find that the beets and turnips that are kept in pits are more crisp and succulent than those stored in root cellars. Turnips should be fed before the beets, as they become pithy by January or February, while the beets in pits are really at their best even later. They become more crisp and tender and are better relished by cows and sheep. A beet a day is a valuable addition to the rations of brood sows when snow and frost shut them away from the luxury of rooting in the clover or wood-lot or getting a bite of blue grass from a Southern slope. The man who says roots do not pay has not learned the value of them as an adjunct to dry feed. Carrots may be superior to beets and mangels, but they are so slow to start that the weeds are likely to swamp them. Beets on land good enough for corn or potatoes can be grown with less labor than potatoes. They need one good hoeing and thinning to one every eight to twelve inches, and then the cultivator and horse can be used as readily as among any other crop.

Last fall we had a few acres that had been in rye. After this had been harvested by men and hogs we sowed it to crimson clover and turnips in July, mixing the seeds before sowing. The volunteer rye and crimson clover have furnished excellent pasture for sows and pigs, and we have hauled off turnips until we have no room for more and the rest we will now let the sheep and lambs at until snow falls. That mixture is novel, but has been a success this season. We considered the turnips the catch crop. That was to take its chance if the crimson clover did well. All three crops succeeded at little cost. The lot is next to the range and pens of the sows and fall pigs, and as weather permits we expect them to find good grazing there until spring. The crimson clover will fall about the first of January, but the rye will survive. This turnip crop is like the pumpkin crop grown among corn, except the turnips succeeded better and were not in the way of cultivation. For succulent feed in early winter, we prefer pumpkins, that during the short pasture of this fall have been enjoyed by cows and sows. By the time they are gone the animals will have been on dry feed long enough to enjoy the turnips. To beginners it may be well to say turnips are not good feed for sows giving milk, as the butter will have the turnip or cabbage flavor. If, however, turnips are fed in moderation once a day just after milking, and preferably in the morning before the cows are turned out for the day, no taint is left on the milk. But if one is making butter for particular customers it is not safe to feed turnips to cows.—Breeder's Gazette.

After serious illness, like typhoid fever, pneumonia, or the grip, Hood's Sarsaparilla has wonderful strength-giving power.

Hog Killing Time. The method of slaughtering hogs for home use undergoes little change from year to year. The same expedients have been used for a generation or two. Farmers who wish to put up their own pork, and have had no experience, should first visit someone who is well versed in the process and observe carefully how it is done. Bangling work is very unsatisfactory. The common way of butchering is by thrusting the knife into the throat, cutting the jugular vein and piercing the heart. The carcass should be sealed in hot water, scraping afterwards with knife or sharp hoe. The opening and cleaning and cutting up is not difficult after one knows how, but those without experience in this line should take one or two lessons at some slaughter house.

Hog Killing Time.

SALTING PORK. In putting up pork to be kept a long time use a strong brine. Make the brine with soft water, using as much salt as will dissolve. In adding the salt, heat the water and remove the scum which rises. Pork should be packed closely, skin side to the barrel, adding a sprinkling of salt between each layer of meat, and first placing a thick layer of salt at bottom of the barrel. When the brine is cold, pour it on the meat. Place a weight on top to keep the meat under the brine.

House Plants.

Window gardening is an attractive pursuit in winter, especially for women folks. Select good healthy plants, relying mainly upon the old favorites, such as geraniums, heliotropes, fuchsias, callas and roses. Small plants are more convenient and desirable for house culture. Winter flowering fuchsias will often continue in bloom from October to May if well cared for. Blossoming may be stimulated by adding a very little ammonia to the water once in two or three weeks. The best earth for house plants is composts mixed with light loam and sand. Do not use too much water on the plants. Keep the surface of the soil stirred. Insects on the plants can be destroyed by watering with tobacco water, made by one pound rolled tobacco and three pints of water nearly boiling. Kerosene emulsion may also be used the same as for outdoor plants.



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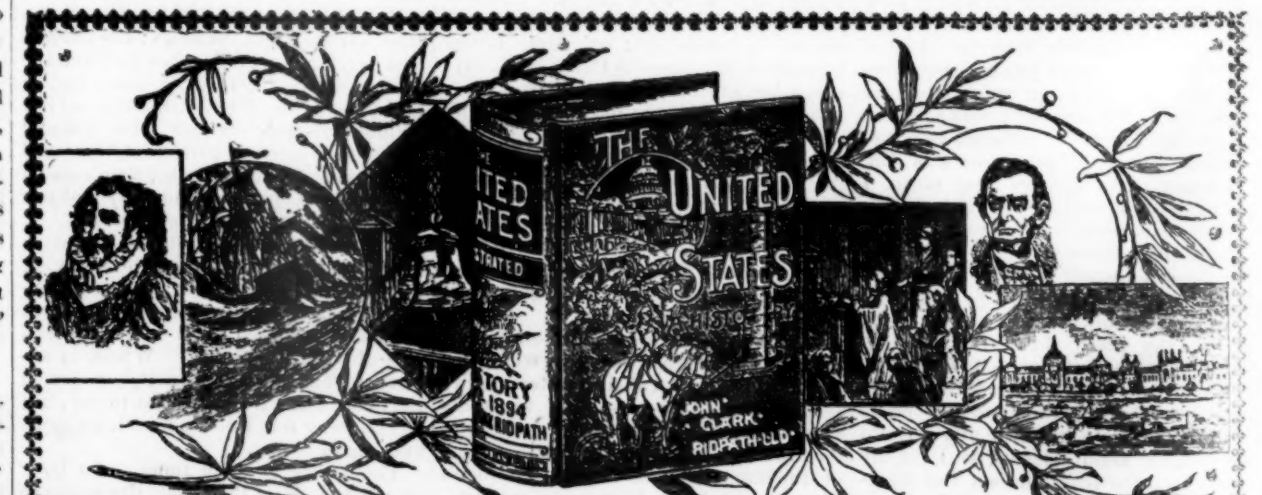
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